AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A microrelay, comprising:

a first signal line;

a second signal line;

a contact head configured to make an electrical connection between the first signal line and the second signal line; and

an electro-thermal actuator coupled to the contact head and configured to laterally displace the contact head so that the closing action of the contact head is parallel to the plane of a semiconductor wafer upon which the microrelay is fabricated;

wherein the contact head and associated portions of the first and second signal lines are covered with a layer of sputtered gold, and wherein a partial release operation ~~was~~ performed at the closing gap ~~to~~ ensure<u>s</u> the separation of sputtered gold on the contact head sidewall and the signal lines.

2. (Original) The microrelay of claim 1,

wherein the electro-thermal actuator comprises a substantially V-shaped beam;

wherein thermal expansion caused by current flowing through the substantially V-shaped beam actuates the contact head to make the electrical connection.

3. (Original) The microrelay of claim 1, wherein the electro-thermal actuator comprises a substantially V-shaped central beam cascaded between two substantially V-shaped side beams, which increase the displacement of the substantially V-shaped central beam during actuation.

4. (Original) The microrelay of claim 1, wherein the electro-thermal actuator is comprised of:

silicon;

polysilicon;

nickel; or

tungsten.

5 (Canceled).

6. (Original) The microrelay of claim 1, wherein the contact head is coupled to the electro-thermal actuator through an insulator.

7. (Original) The microrelay of claim 6, wherein the insulator is comprised of:

silicon nitride; or

silicon dioxide.

8 (Canceled).

9. (Previously presented) The microrelay of claim 1, wherein the shape of the contact head is:

square; or

rounded.

10. (Original) The microrelay of claim 1, wherein the microrelay is fabricated using a process that involves:

deposition of low-stress silicon nitride as isolation;

deposition and patterning of sacrificial silicon dioxide;

deposition and patterning of a low-stress silicon nitride connection;

deposition and patterning of polysilicon;

a partial release operation;

sputtering and lift-off of gold; and

a full release operation.

11. (Original) The microrelay of claim 1, wherein the microrelay is an element in an array of microrelays.

12. (Currently amended) A microrelay, comprising:

a first signal line;

a second signal line;

a contact head configured to make an electrical connection between the first signal line and the second signal line; and

an electro-thermal actuator coupled to the contact head and configured to laterally displace the contact head so that the closing action of the contact head is parallel to the plane of a semiconductor wafer upon which the microrelay is fabricated;

wherein the electro-thermal actuator comprises a substantially V-shaped beam, wherein thermal expansion caused by current flowing through the substantially V-shaped beam actuates the contact head to make the electrical connection;

wherein the contact head and associated portions of the first and second signal lines are covered with a layer of sputtered gold, and wherein a partial

release operation ~~was~~ performed at the closing gap ~~to~~ ensures the separation of sputtered gold on the contact head sidewall and the signal lines.

13 (Canceled).

14. (Original) The microrelay of claim 12, wherein the contact head is coupled to the electro-thermal actuator through an insulator.

15 (Canceled).

16. (Previously presented) The microrelay of claim 12, wherein the shape of the contact head is:

square; or

rounded.

17-20 (Canceled).